

I CLAIM:

1. A communications system, comprising:  
a transmitter, comprising:  
a light source for generating a directed light beam modulated to transmit  
a data signal;  
5 a controllable mirror for directing the light beam toward a receiver;  
a photodiode for receiving light reflected from substantially the same  
direction as the light is directed by the mirror; and  
control circuitry, coupled to the photodiode and to the mirror, for  
controlling the aim of the mirror; and  
10 a receiver, comprising:  
a lens;  
a photodiode for receiving incident light from the transmitter through the  
lens; and  
a reflective ring surrounding the lens, for reflecting incident light from  
15 the transmitter back to the transmitter.
2. The system of claim 1, wherein the mirror comprises:  
a mirror element formed of a single piece of crystalline material, the  
mirror element having a frame, a mirror surface, and a plurality of hinges.
3. The system of claim 1, wherein the reflective ring comprises a plurality of  
corner cube elements.

4. The system of claim 1, wherein the light source comprises a laser.

5. The system of claim 4, wherein the transmitter further comprises:

a lens for spreading the modulated laser beam to have a spot size approximately the same size as an outer diameter of the reflective ring.

6. A method of transmitting data signals, comprising:

generating a modulated light beam;

orienting a micromirror to reflect the modulated light beam toward a receiver;

receiving reflected light from the transmitter; and

adjusting the orientation of the micromirror responsive to the received reflected light.

7. The method of claim 6, wherein the adjusting step comprises:

iteratively adjusting the orientation of the micromirror to maximize the intensity of the received reflected light.

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